MGE - MHP

Owner's Manual – Installation and Operating Instructions

Please read this manual carefully before installation and use.

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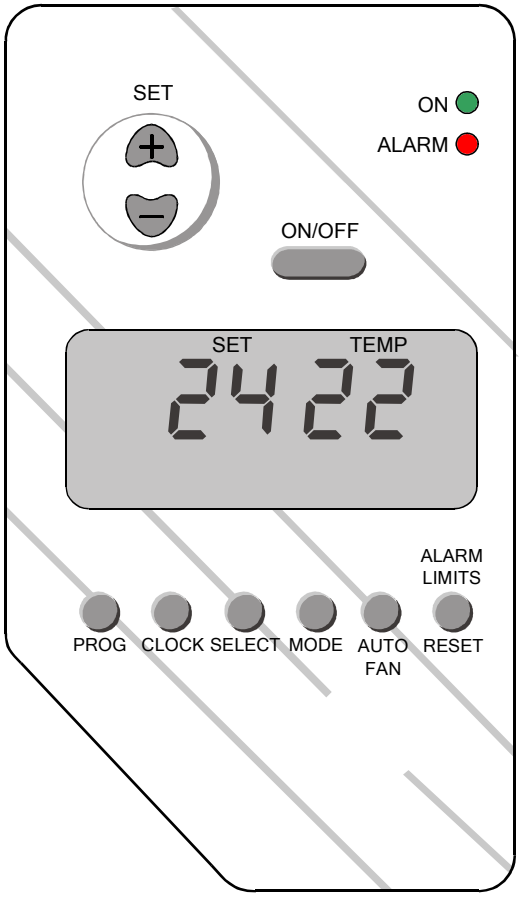
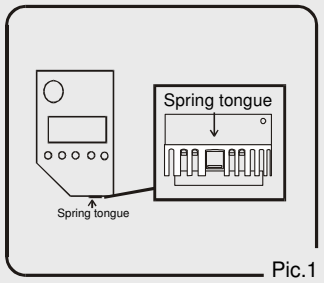
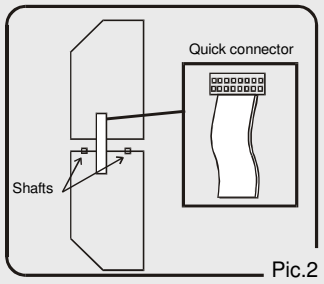


1. Installation Instructions

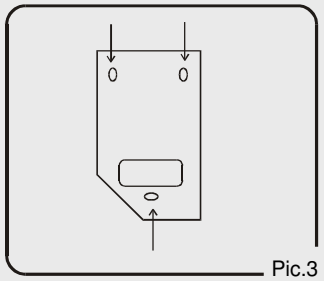
It is recommended to mount the thermostat or return air sensors between 1.5 & 1.8 meters from the floor where possible.

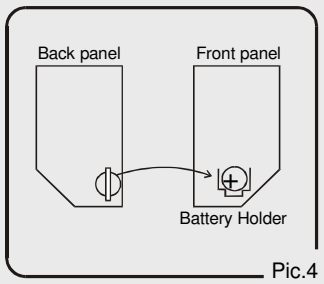


Pic.1



Pic.2


Pic.3



Pic.4

Separate the base from the cover by pressing the tongue (pic.1).

Gently disconnect the cover from the base with quick connector (pic.2)

Line the back panel up against the wall or flat surface on which it is to be mounted and drill the appropriate fixing holes (pic.3).

Insert screws so they extend approx. 3/16" (3 mm) from wall or surface.

Align the back panel against these screws, pushing it forward, allowing it to slide downwards to lock into position.

Make electrical connections to terminals on the back panel as shown on enclosed electrical wiring diagram

Reconnect the quick connector.

Attach the cover to the base, first the two shafts and then the spring.

Connect 24Vac to the thermostat; verify that LCD display is ON.

Do not install battery before power is applied.

Remove battery from back panel by sliding it to the left and out from its white retaining clip and mount it in black holder on front panel; insert it from the top, gently pressing downwards until it snaps into place and is held under the top clip of the holder. The '+' engraved on battery should be visible (pic. 4).

Be careful when inserting the battery – the top clip of the holder is very fragile.

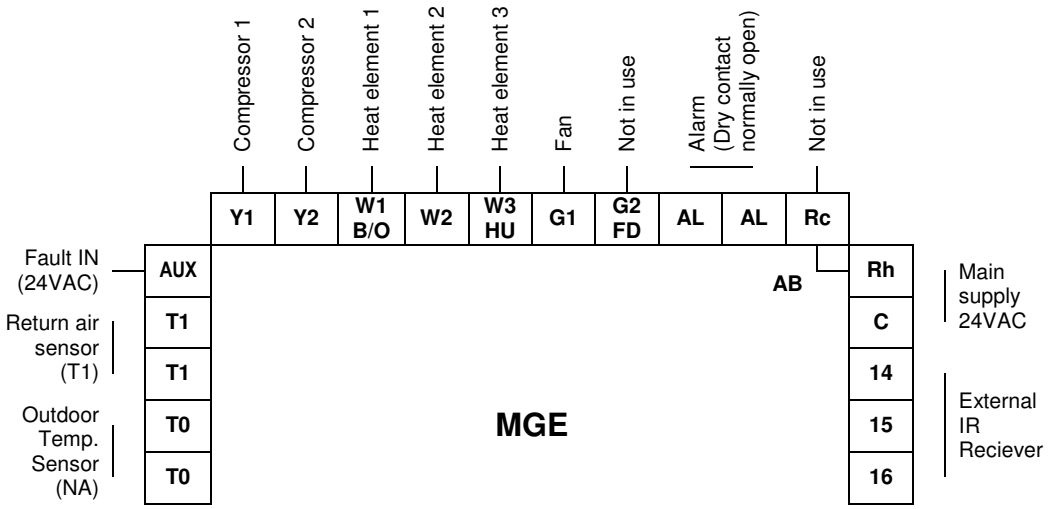
Reassemble front and back cover.

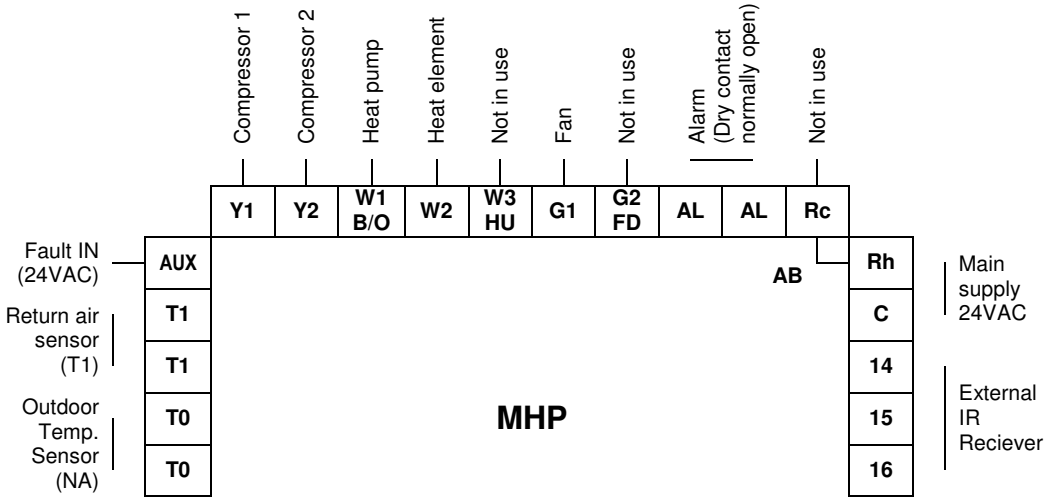
Connect at top first then at bottom.

To change jumpers: Disconnect electricity, remove battery and wait 60 seconds

Disconnect power before installing battery

2. Wiring Connections

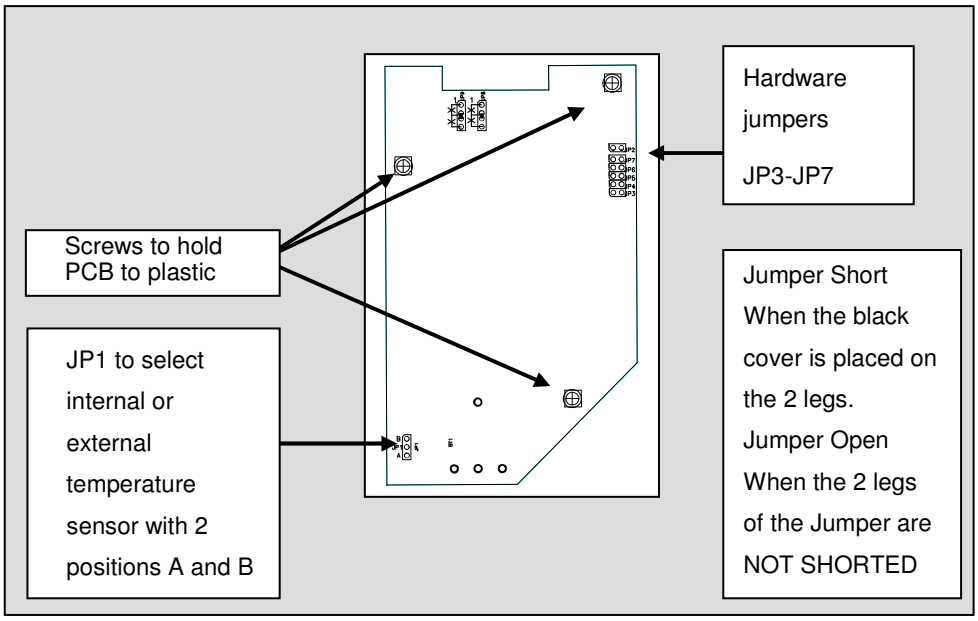




3. Hardware jumpers

3.1 The Jumpers are located on the back of the front panel (Inside the thermostat) as shown in the drawing.

Table 3.1 – Jumper selection

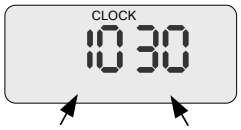

Hardware jumpers
JP3-JP7
Screws to hold PCB to plastic
JP1 to select internal or external temperature sensor with 2 positions A and B
Jumper Short When the black cover is placed on the 2 legs.
Jumper Open When the 2 legs of the Jumper are NOT SHORTED

Jumper	Function	Position	Default
JP1	Internal Sensor Control	Pos. A	Pos. A
	External sensor control	Pos. B	
JP3	4 minutes delay for compressor	Open	Open
	No delay	Short	
JP4	Clock mode – 24 hours	Open	Open
	Clock mode – 12 hours (AM/PM)	Short	
JP5	Temperature in Fahrenheit	Open	Short
	Temperature in Celsius	Short	
JP6	Europe timer type	Short	Short
JP7	Reversing Valve (W1) output in heating mode (eg Rheem)	Short	Short
	Reversing Valve (W1) output in cooling mode (eg FHP)	Open	

4. Operating Manual

4.1 Thermostat display

In normal display mode, the LCD alternates between real time clock and set/room temperatures.



Hours Minutes

Set-temperature Room temperature

4.2 On/Off

- Press the ON/OFF button to turn the thermostat ON.
  When on – the "SYSTEM" LED will turn on.
- Press and hold the ON/OFF button to turn the thermostat OFF.

4.3 Selecting modes

- Press the MODE button to switch between the four modes:

1. Fan only - When ventilation only needed.
2. Cooling
3. Heating
4. Cool/Heat - Auto change-over
   Activating Heating or Cooling automatically according to the set and room temperatures.
   The current active mode will flash.

1. Fan

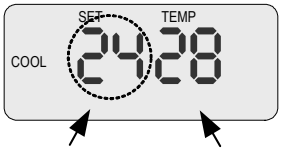
3. Heat

2. Cool

4. Auto change-over

4.4 Set temperature

- Press the buttons – the word "SET" will flash.
- Adjust the set temperature using the buttons (range: 5-35°C).



Set-temperature Room temperature

4.5 Auto fan

- Press the AUTO FAN button to switch between “fan on” and “auto fan” modes.

In “auto fan” mode – the fan will work only when there is demand for cooling or heating.

4.6 Real time clock and day

Adjust the hours

- Press the CLOCK button - the hours will flash.
- Adjust the hours using the button.

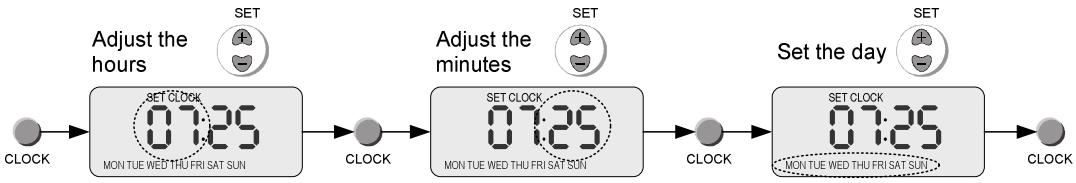
Adjust the minutes

- Press the CLOCK button again – the minutes will flash.
- Adjust the minutes using the button.

Set the day

- Press the CLOCK button again – the days will flash.
- Set the day using the button.

- Press the CLOCK button again to return to normal display.



4.7 Weekly Program

The thermostat can be activated and deactivated using a weekly program.
Different programs can be set for the weekdays (Monday to Friday), Saturday and Sunday (all weekdays with the same program).
Two different programs can be set for each day (1st start time, 1st stop time, 2nd start time, 2nd stop time).

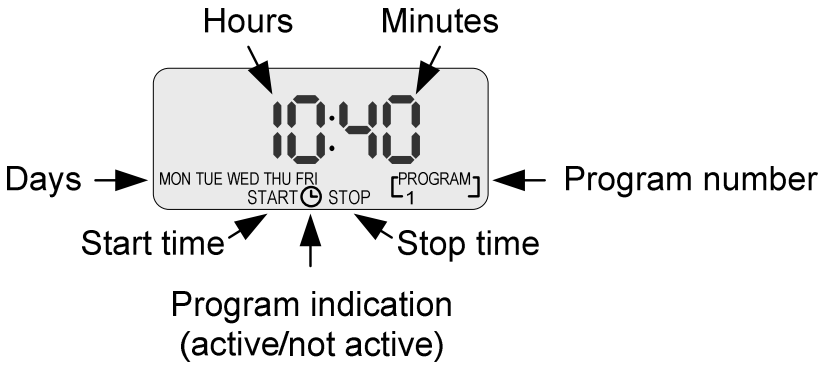
The following program chart can assist you during the program settings.

Monday → Friday		Saturday		Sunday	
[PROGRAM 1]	START __:__	[PROGRAM 1]	START __:__	[PROGRAM 1]	START __:__
	STOP __:__		STOP __:__		STOP __:__
[PROGRAM 2]	START __:__	[PROGRAM 2]	START __:__	[PROGRAM 2]	START __:__
	STOP __:__		STOP __:__		STOP __:__

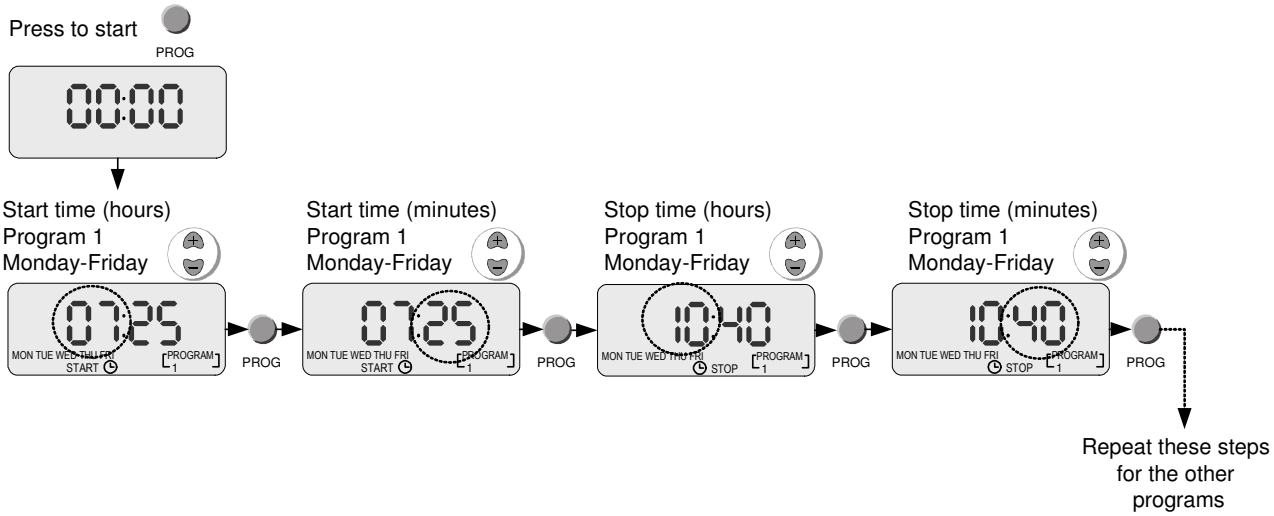
Programming procedure

- Press the PROG button - 00:00 will appear on the display
- Press the PROG button again – the HOURS will flash and the START, PROGRAM 1 and MON→FRI symbols will appear on the display.
- Adjust the start time (hours) for the 1st program of the weekdays using the + − buttons.
- Press the PROG button again – the MINUTES will flash and the START, PROGRAM 1 and MON→FRI symbols will appear on the display.
- Adjust the start time (minutes) for the 1st program of the weekdays using the + − buttons.
- Press the PROG button again – the HOURS will flash and the STOP, PROGRAM 1 and MON→FRI symbols will appear on the display.
- Adjust the start time (hours) for the 1st program of the weekdays using the + − buttons.
- Press the PROG button again – the MINUTES will flash and the STOP, PROGRAM 1 and MON→FRI symbols will appear on the display.
- Adjust the start time (minutes) for the 1st program of the weekdays using the + − buttons.
- Repeat these steps for program 2 (weekdays), for the two programs of Saturday and for the two programs of Sunday.

Program display



Program layout

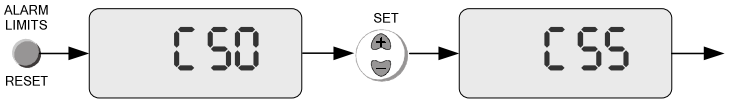


Remarks

- Every program must have a start time and stop time within the same day.
- Use the CLOCK button for quick review/edit the program – jump between days.
- Press and hold the PROG button to switch between program mode (program activated) and manual mode (program not activated) – the program settings will remain in the memory of the thermostat until the program is reactivated (this can be done only when the thermostat is ON). An active program is indicated by the ◷ icon.
- During programming the thermostat will automatically return to normal display mode when no button is pressed within 5 seconds.

4.8 Technician Settings

- Press the RESET / ALARM LIMITS button – “C50” will appear on the display.
- Change the number to “55” using the buttons.



High temperature limit

- Press the RESET / ALARM LIMITS button again – “HL” and the high temperature limit will appear on the display.
- Adjust the high temperature limit using the buttons (range: 4-39^{o}C, do not set the high temperature limit higher than 31^{o}C where cooling is used).

Low temperature limit

- Press the RESET / ALARM LIMITS button again – “LL” and the low temperature limit will appear on the display.
- Adjust the low temperature limit using the buttons (range: 2-30^{o}C, do not set the low temperature limit lower than 18^{o}C where cooling is used or lower than 16^{o}C where heat pump is used).

High temperature alarm

• Press the RESET / ALARM LIMITS button again – “HL” and the high temperature alarm will appear on the display.

• Adjust the high temperature limit using the buttons (range: 4-46°C).

Note: When the alarm activates, the AL,AL outputs will activate and the ALARM red LED will flash.

Low temperature alarm

• Press the RESET / ALARM LIMITS button again – “LA” and the low temperature alarm will appear on the display.

• Adjust the low temperature limit using the buttons (range: 2-44°C).

Note: When the alarm activates, the AL,AL outputs will activate and the ALARM red LED will flash.

Reset the alarm

The alarm will automatically clear itself when the temperature returns to normal range.

The alarm can be manually cleared by pressing and holding the RESET / ALARM LIMITS button

Contacts

In the unlikely event of a problem with this **Rheem** controller you should contact the installing contractor.

Please write their details below:

_____

_____

_____

_____

_____

Importer

The exclusive importer of **Rheem** Air Conditioners and Heat Pumps for the UK is **Medal Aircon Accessories Ltd** and their email address is www.medalaircon.co.uk .

They may be contacted on 01743 466333 or by fax on 01743 466334.

Alternatively email them at sales@medalaircon.co.uk

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